
REMARKS

This communication is a full and timely response to the final Office Action dated January 14, 2004. By this communication, claims 1 and 4 have been amended to recite, among other things, setting a fingerprint accepting flag associated with said read fingerprint information indicating that read fingerprint information is normally produced through said prism. Claims 5 and 10 have been amended to recite, among other things, setting a fingerprint accepting flag in a first memory unit when a fingerprint image of the user is normally produced through the prism. Claim 14 has been amended to recite, among other things, the fingerprint accepting flag is set when a fingerprint image is normally produced through the prism. Support for the changes to claims 1, 4, 5, 10, and 14 can be found variously throughout the specification. For example, support for the amendments to claims 1, 4, 5, 10, and 14 can be found at page 6 lines 12-22 of the substitute specification. In addition, claims 6-9 have been amended to correct formal matters.

Entry of this Amendment is proper under 37 C.F.R. §1.116 since the amendment: (a) places the application in condition for allowance (for the reasons discussed herein); (b) does not raise any new issues requiring further search and/or consideration; (c) satisfies a requirement of form asserted in the previous Office Action; and (d) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of this amendment is respectfully requested. Reexamination and reconsideration in light of the above amendments and the following remarks is respectfully requested.

No new matter has been added. Claims 1-18 are pending where claims 1, 4, 5, 10, and 14 are independent.

Examiner's Interview

Applicant's representative respectfully thanks the Examiner for the interview which was conducted telephonically on February 11, 2004. During the interview, all rejections pertaining to the applied references were discussed. As a result, of this discussion the Examiner acknowledged that pending further review, the feature of setting the fingerprint accepting flag, overcomes the applied art.

Claim Objections

Claims 6-9 were objected to for alleged informalities. Applicant has amended each of claims 6-9 to recite, among other things, "The system of claim 5." Accordingly, Applicant respectfully requests that the objection to claims 6-9 be withdrawn.

Rejections Under 35 U.S.C. §103

Claims 1, 3, and 4 were rejected under 35 U.S.C. §103(a) as unpatentable over *Haneda et al.*, U.S. Patent No. 6,490,366. Applicant respectfully traverses this rejection.

Independent claim 1 recites a fingerprint collating device for collating a user's fingerprint with registered fingerprint information to effect personal authentication, said device comprising an external computer; a prism for reading said fingerprint to create read fingerprint information, and to create read history information indicating that said read fingerprint information has been created; a read history storage for storing said read history information and executing a control program when instructed by the external computer; a controller for setting a fingerprint accepting flag associated with said read fingerprint information indicating that read fingerprint information is normally produced through said prism; and a collator collating said read fingerprint information with said registered fingerprint information to effect personal authentication and output a result of authentication when said fingerprint accepting flag is set, said read history information is stored in said read history storage, and the control program is executed.

Independent claim 4 recites a fingerprint collating method for collating a user's fingerprint with registered fingerprint information to effect personal authentication, said method comprising the steps of reading said fingerprint through a prism to create read fingerprint information, and to create read history information indicating that said read fingerprint information has been created; storing said read history information in read history storing means; setting a fingerprint accepting flag associated with said read fingerprint information indicating that read fingerprint information is normally produced through the prism; and executing a control program in said read history storage means when an instruction signal is received from an external computer; and collating said read fingerprint information with said registered fingerprint information to effect personal authentication and output a result of authentication when said fingerprint accepting flag is set, said read history

information is stored in said read history storing means, and said read history storage means executes the control program.

Haneda discloses an information processing apparatus that identifies a user by verifying the user's fingerprint. To verify a fingerprint, the user places his finger on a fingerprint detection section 6 or 15, and when a shadow of the finger is detected a backlight of detecting section 6 or 15 is turned on. The fingerprint is then detected and collated with previously stored fingerprint data. If the user's fingerprint coincides with the previously stored fingerprint data then the device power is turned on. In detecting the placement of the finger on detection section 6, the reflected light detected by sensor portion 62 is captured, stored in sensory memory 20, and outputted to a distribution operation section 21 to determine data distribution. Based on the data distribution of the captured image, the device determines whether a finger is placed on the fingerprint detecting section 6 by comparing the captured image to a distribution pattern stored in a distribution pattern detecting section 22. The distribution operation section 21 outputs a signal to a driving section 27, so that the backlight 6-3 is turned on, and outputs a signal to collating section 23 to drive collation. In addition, the distribution pattern detecting section 22 outputs a signal to gate 29. A fingerprint storage flag 25-3 of a central section 25 indicates whether fingerprint information is stored in the fingerprint information storage section 24. When the fingerprint storage flag is set to "1," fingerprint information is stored in the fingerprint information storage section 24. The distribution pattern detecting section 22 also outputs a signal to collating section 23 to begin the collating process. When power is turned on the central control section 25 determines whether a secret mode is released, and if so, the fingerprint is detected based on the data of sensory memory 20 inputted from collating section 23, and the fingerprint is collated with a fingerprint previously stored in a fingerprint information storage section.

As noted above, during the interview the Examiner acknowledged that *Haneda* fails to disclose, teach, or suggest setting a fingerprint accepting flag as recited in each of claims 1 and 4. In particular, *Haneda* discloses the use of a fingerprint sensor section that normally produces a fingerprint image through a distribution of voltage, which is far different than the manner in which a prism as recited in claims 1 and 4, normally produces a fingerprint image.

Still further, the Office Action acknowledges that *Haneda* fails to disclose, teach, or suggest at least the use of a computer external to the fingerprint reader, and further alleges that this component is an obvious variant. The Office Action further acknowledges that

Haneda fails to disclose, teach, or suggest at least that a control program is executed in read history storage when instructed by an external computer, as recited in claim 1 and similarly recited in claim 4. *Haneda*, however, provides no viable substitute or equivalent for executing a control program in read history storage when instructed by an external computer. The Office Action discusses a series of steps executed by *Haneda* to detect a fingerprint, but none of these steps includes instructing a read history storage means to execute a control program. Thus, with regards to claims 1 and 4 a *prima facie* case for obviousness has not been established.

To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, obviousness “cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination.” *ACS Hosp. Sys. V. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). In sum, *Haneda* fails to disclose, teach, or suggest every element recited in claim 1. As a result, a *prima facie* case for obviousness has not been established. Accordingly, Applicant respectfully requests that the rejection of claims 1 and 4 under 35 U.S.C. §103 be withdrawn and these claims be allowed.

Claim 3 depends from claim 1. By virtue of this dependency, Applicant submits that claim 3 is allowable for at least the same reasons given above with respect to claim 1. In addition, Applicant submits that claim 3 is further distinguished over *Haneda* by the additional elements recited therein, and particularly with respect to the claimed combination. Applicant respectfully requests, therefore, that the rejection of claim 3 under 35 U.S.C. §103 be withdrawn, and this claim be allowed.

Claim 2 was rejected under 35 U.S.C. §103(a) as unpatentable over *Haneda* in view of *Senior*, U.S. Patent No. 6,400,836. Applicant respectfully traverses this rejection.

Claim 2 depends from claim 1. By virtue of this dependency, Applicant submits that claim 2 is allowable for at least the same reasons given above with respect to claim 1. In addition, Applicant submits that claim 2 is further distinguished over *Haneda* and *Senior* by the additional elements recited therein, and particularly with respect to the claimed combination. Applicant respectfully requests, therefore, that the rejection of claim 2 under 35 U.S.C. §103 be withdrawn, and this claim be allowed.

Claims 5, 6, 8, 10, 11, 13-15, and 17 were rejected under 35 U.S.C. §103 as unpatentable over *Haneda* in view of *Matsumura*, U.S. Patent No. 5,493,621. Applicant respectfully traverses this rejection.

Claim 5 recites a fingerprint collating system comprising means for generating a collation instruction and an index number; means for illuminating a bottom face of a prism based on the collation instruction; means for generating a fingerprint image of a user when an air layer exists between a finger of a user and a top face of the prism; means for setting a fingerprint accepting flag in a first memory unit when a fingerprint image of the user is normally produced through the prism; means for reading a fingerprint template associated with the index number from a second memory unit; and means for collating the fingerprint image and the fingerprint template when the fingerprint image of the user is generated and the fingerprint accepting flag is set.

Claim 10 recites a method for collating a fingerprint in a fingerprint collating system that includes a personal computer and a collating unit, the method comprising generating a collation instruction and an index number; illuminating a bottom face of a prism based on the collation instruction; generating a fingerprint image of a user when an air layer exists between a finger of a user and a top face of the prism; setting a fingerprint accepting flag in a first memory unit when a fingerprint image is normally produced through the prism; reading a fingerprint template associated with the index number from a second memory unit; and collating the fingerprint image and the fingerprint template when the fingerprint image of the user is generated and the fingerprint accepting flag is set.

Claim 14 recites a system for collating a fingerprint of a user, comprising a computer that generates a fingerprint collation instruction and an index number, wherein the computer has a first memory unit; a prism that generates a fingerprint image of a user when the collation instruction is received from the computer and an air layer exists between a portion a finger of the user and a top face of the prism; and a collating unit that retrieves a fingerprint template of the user from a second memory unit based on the index number and collates the fingerprint image of the user with the fingerprint template when a fingerprint accepting flag is set in the first memory unit, wherein the fingerprint accepting flag is set when a fingerprint image is normally produced through the prism.

Again Applicant notes that during the interview the Examiner acknowledged that *Haneda* fails to disclose, teach, or suggest setting a fingerprint accepting flag as recited in

each of claims 1 and 4. In particular, *Haneda* discloses the use of a fingerprint sensor section that normally produces a fingerprint image through a distribution of voltage, which is far different than the manner in which a prism as recited in claims 5, 10, and 14, normally produces a fingerprint image.

Still further, the Office Action acknowledges that *Haneda* fails to disclose, teach, or suggest at least a fingerprint image is generated when an air layer exists between a finger of a user and a top face of the prism. In an effort to remedy this deficiency, the Office Action takes Official Notice alleging that generating a fingerprint image in this manner is commonly known. Applicants disagree with this position because *Haneda* is directed to a system where the fingerprint detecting section is comprised of a glass portion, sensor portion, and a back light. The Office Action although stating that the manner of fingerprint generation recited in the claims is commonly known, does not provide evidence that this particular method can be integrated or substituted in the fingerprint detecting section of *Haneda*. Moreover, the fingerprint sensor of *Haneda* normally produces a fingerprint image through a distribution of voltage. This manner of normally producing a fingerprint image as disclosed in *Haneda* is far different from the manner in which a prism normally produces a fingerprint image. Thus, Applicant hereby challenges the taking of Official Notice, and further submits that the imaging system as disclosed by *Haneda* cannot achieve the results as recited in claims 5, 10, and 14.

In a memo to the Examining Corps and Technology Center Directors, Stephen G. Kunin, Deputy Commissioner for Patent Examination Policy, stated that reliance on "Official Notice" when an application is under final rejection should be rare. See "Procedures for Relying on Facts Which are Not of Record as Common Knowledge or for Taking Official Notice," United States Patent and Trademark Office, memo from Stephen G. Kunin, Deputy Commissioner for Patent Examination Policy, page 2 (February 2002). Moreover, Mr. Kunin stated, "[o]fficial notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known." See *Id.* "It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known." See *Id.*

In addition, if the Examiner believes that claims 5, 10, and 14 still read on a prior art reference, Applicant hereby requests that the Examiner either:

- (a) Provide another non-final Office Action withdrawing Official Notice, and applying a suitable reference for the asserted rejection; or
- (b) Issue another rejection under an appropriate statutory provision and provide an affidavit or suitable reference attesting to all the elements taken as Official Notice.

By this reply, Applicant has timely challenged the Examiner's Official Notice.

In addition, the Office Action acknowledges that *Haneda* fails to disclose, teach, or suggest at least means for generating an index number that is associated with the fingerprint template that is read from a second memory unit. The Examiner relies on *Matsumura* to allegedly remedy this deficiency.

Matsumura discloses a fingerprint ID system 10 and method for comparing fingerprint image data with registered or previously stored image data in real time. See col. 3, lines 37-41. To compare fingerprint data the fingerprint image input device 11 receives a fingerprint image when a finger is placed on a sheet of transparent glass. The received image is stored in the frame memory 13. The acquired image is thinned and minutia is extracted. The image is then registered based on positions of branch points of the minutiae. The degree of mismatch between the branch points in the image and registered data is generated to determine the whether the image data matches the registered data. A mismatching value below a predetermined value indicates that the image data and registered data are a match. When a recognition rate for the image data is below a predetermined value, a template matching method is then used. *Matsumura* further discloses that a fingerprint storage flag is set to "1" when fingerprint information is stored in the fingerprint information storage section. However, *Matsumura* fails to disclose, teach, or suggest **setting a fingerprint accepting flag in a first memory unit when a fingerprint image of the user is normally produced through the prism**, as recited in claims 5, 10, and 14. The fingerprint accepting flag does not indicate that a fingerprint image is stored in memory, but indicates that the object placed on the prism is ripe for producing a fingerprint image. Thus, the presence of image data in memory would not drive the fingerprint accepting flag to be set. In contrast, *Matsumura* merely discloses that the fingerprint storage flag is set when fingerprint information is stored in the fingerprint information storage section. The setting of the

fingerprint storage flag is further not based on the ability of the object on platen to produce a fingerprint image. Thus, *prima facie* case for obviousness has not been established.

In sum, *Haneda* and *Matsumura* either singly or combined fail to disclose, teach, or suggest at least setting a fingerprint accepting flag when the user's fingerprint is accepted to produce a fingerprint image. At best, the combination of *Haneda* and *Matsumura* discloses that a fingerprint image and a fingerprint template are collated when the fingerprint image is stored in memory. To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, obviousness "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." ACS Hosp. Sys. V. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). For at least the reasons above, Applicant respectfully requests that the rejection of claims 5, 10, and 14 under §103 be withdrawn and these claims be allowed.

Claims 6 and 8 depend from claim 5; claims 11 and 13 depend from claim 10; and claims 15 and 17 depend from claim 14. By virtue of this dependency, Applicant submits that claims 6, 8, 11, 13, 15, and 17 are allowable for at least the same reasons given above in accordance with their respect base claims. In addition, Applicant submits that claims 6, 8, 11, 13, 15, and 17 are further distinguished over *Haneda* and *Matsumura* by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully requests, therefore, that the rejection of claims 6, 8, 11, 13, 15, and 17 under 35 U.S.C. §103 be withdrawn, and these claims be allowed.

Claims 7, 9, 12, 16, and 18 were rejected under 35 U.S.C. §103(a) as unpatentable over *Haneda* in view of *Matsumura* and further in view of *Senior*. Applicants respectfully traverse this rejection.

Claims 7 and 9 depend from claim 5; claim 12 depends from claim 10; and claims 16 and 18 depend from claim 14. By virtue of this dependency, Applicant submits that claims 7, 9, 12, 16, and 18 are allowable for at least the same reasons given above in accordance with their respect base claims. In addition, Applicant submits that claims 7, 9, 12, 16, and 18 are further distinguished over *Haneda*, *Matsumura*, and *Senior* by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully

requests, therefore, that the rejection of claims 7, 9, 12, 16, and 18 under 35 U.S.C. §103 be withdrawn, and these claims be allowed.

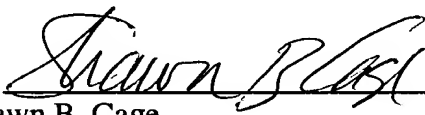
Conclusion

Based on at least the foregoing amendments and remarks, Applicants submit that claims 1-18 are allowable, and this application is in condition for allowance. Accordingly, Applicants request favorable reexamination and reconsideration of the application. In the event the Examiner has any comments or suggestions for placing the application in even better form, Applicants request that the Examiner contact the undersigned attorney at the number listed below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-1889 from which the undersigned is authorized to draw.

Dated: March 5, 2004

Respectfully submitted,

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One (1) cited references

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